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*Southwestern*

# Forest Insect & Disease Bulletin

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FOREST SERVICE

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**No. 1**INTRODUCTION

The purpose of this bulletin is to gather and provide current information on forest insect and disease activity to all land managers and other interested parties in Arizona and New Mexico.

Forest Pest Control Branch, Division of Timber Management, will publish the bulletin twice a year--spring and fall. In addition, special issues will be published as significant or interesting events occur.

The Forest Pest Control Branch is responsible for providing expertise relative to insect and disease control on forest lands administered by the Forest Service, National Park Service, Bureau of Indian Affairs, Bureau of Land Management, and other Federal agencies.

On non-Federal forest lands, the Branch cooperates with private individuals and state agencies on matters pertaining to insect and disease control.

BARK BEETLES COULD BE IN THE DEEP FREEZE

Recent low temperatures may have been fatal to bark beetles in New Mexico and Arizona. Beetle mortality caused by low temperatures has been well-established. Death of adult beetles and larvae can be expected when temperatures reach  $-40^{\circ}$  F.

Many insects prepare for winter by either producing glycerol, which serves as an antifreeze, or by lowering their body water content. The ability of an insect to lower its freezing point is termed cold-hardiness. Cold-hardiness is stimulated by gradually cooling temperatures and other environmental factors. Hopefully, the beetles had not developed adequate cold-hardiness and were left vulnerable to the recent extremely low temperatures.

The spruce beetle and roundheaded pine beetles, species that may be affected by extremely low temperatures, have killed more than a half million trees since 1968 in Arizona and New Mexico.

Forest Service entomologists Harold Flake and Bob Frye will sample for brood mortality in February and March on the Carson, Santa Fe, and Lincoln National Forests of New Mexico, and on the Fort Apache Indian Reservation in Arizona. Infested portions of the trees will be

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collected and brought to Albuquerque for examination. If brood mortality is evident, suppression programs could be curtailed.

Please direct any questions or reports of forest insect or disease activity as follows:

Forest Service, USDA  
Division of Timber Management  
Branch of Forest Pest Control  
517 Gold Avenue, SW  
Albuquerque, New Mexico 87101